

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015/2016

DMG5028 – MANAGEMENT ACCOUNTING 2

(For Diploma Students Only)

7 MARCH 2016
2.30 P.M – 5.30 P.M
(3 Hours)

INSTRUCTIONS TO STUDENT

1. This Question paper consists of **EIGHT (8)** pages with **FOUR (4)** questions.
2. Answer **ALL** questions. All questions carry equal marks.
3. Please write your answers in the Answer Booklet provided.

QUESTION 1

For many years, Sunpad Company manufactured a tablet for education purposes, i-LEARN. In recent years, the company began automating a portion of its plant. Three years ago, the company introduced a second product named i-PLAY is more complex product, requiring one hour of direct labor time per unit to manufacture and extensive machining in the automated portion of the plant. The i-LEARN requires only 0.75 hour of direct labor time per unit and only a small amount of machining. Manufacturing overhead costs are currently assign to products on the basis of direct labor hours.

Material and labor cost per unit are as follow:

| | Model | |
|-----------------|---------|--------|
| | i-LEARN | i-PLAY |
| Direct material | RM35 | RM48 |
| Direct labor | RM9 | RM12 |

Despite a growing popularity for i-PLAY, profits have been declining steadily. Management is beginning to believe that there may be a problem with the company's costing system. Management is considering applying Activity Based Costing (ABC) for the company's manufacturing overhead cost.

Management estimates that the company will incur RM1,000,000 in manufacturing overhead costs. 40,000 units of i-LEARN and 10,000 units of i-PLAY will be produced and sold. During the year, he following information has been identified:

Continued.....

| Activity Cost Pool | Activity | Estimated overhead costs | Expected Activity | |
|--------------------|-----------------|--------------------------|-------------------|---------|
| | | | i-PLAY | i-LEARN |
| Maintaining | Number of parts | RM180,000 | 75 | 150 |
| Processing | | | | |
| purchase order | Number of order | 90,000 | 800 | 200 |
| Quality Control | Number of tests | 230,000 | 2,500 | 3,250 |
| Machining | Machine hours | 500,000 | 4,000 | 6,000 |

Required:

1. Compute the predetermined overhead rate using traditional costing system.
(3 Marks)
2. Determine the unit product cost of each model from your answer in (1).
(4 Marks)
3. Using activity based costing system (ABC), determine the activity based overhead rate for each of the four activity measure.
(4 Marks)
4. Compute the total amount of manufacturing overhead costs that would be applied to each of the model under activity based costing system (ABC) system.
(10 Marks)
5. Compute the unit product cost of each model under activity based costing system (ABC) system.
(5 Marks)

[TOTAL 26 MARKS]**Continued.....**

QUESTION 2**PART A**

Jungle Trekkers Company produces backpacks. The company has recently established a standard cost system to help control costs and has established the following standards for Jungle Trekkers Company:

| | |
|------------------|--|
| | 600 grams per backpack at RM 0.50 per |
| Direct materials | gram |
| Direct labor | 1.3 hours per backpack at RM8 per hour |

During December, the company produces 3,000 backpacks. Production data for the month on the backpacks are as follow:

| | |
|------------------|---|
| Direct materials | 25,000 grams were purchased at a cost of RM0.48 per gram. |
| Direct labor | 4,000 direct labor hours were worked at a cost of RM 36,000 |

Required:

Compute the following variances for December:

1. Direct materials price and quantity variance.

(3 Marks)

2. Direct labor price and quantity variance.

(3 Marks)

PART B

Stay Health Chemicals (SHC) processes natural gas into various industrial products. In June 2015, SHC incurred joint costs of RM100,000 to purchase natural gas and convert into two saleable products: propylene and ethylene. Although there is an active outside market for ethylene, SHC processes all 800 tons of ethylene it produces into 500 tons of alcohol, which is then sold. There were no beginning or ending inventories of natural gas, propylene and ethylene in June. Information for June 2015 production and sales follows:

Continued.....

| | Joint Costs | Alcohol |
|--|-------------|----------|
| Joint costs (costs of natural gas and processing to split off point) | RM100,000 | |
| Separable cost of processing 800 tons of ethylene into 500 tons of alcohol | | RM20,000 |

| | Propylene | Ethylene | Alcohol |
|---|-----------|----------|---------|
| Beginning inventory (tons) | 0 | 0 | 0 |
| Production (tons) | 1,200 | 800 | 500 |
| Transfer for further processing (tons) | | 800 | |
| Sales (tons) | 1,200 | | 500 |
| Ending inventory (tons) | 0 | 0 | 0 |
| Selling price per ton in active outside market (for products not actually sold) | | RM75 | |
| Selling price per ton for products sold | RM50 | | RM200 |

Required:

1. Allocate the joint costs between propylene and ethylene under:
 - a) The sales value at split off method (5 Marks)
 - b) The physical measure method (4.5 Marks)
2. Allocate the joint costs between propylene and alcohol under the NRV method. (8.5 Marks)

[TOTAL 24 MARKS]**Continued.....**

QUESTION 3

Mekjah Company manufactures and sells a product that has seasonal variations in demand, with peak sales coming in the third quarter. The company's single product sells for RM8 per unit. The following information concerns operation in Year 2016 and for the first two quarters of Year 2017.

| | Year 2016 | | | | Year 2017 | |
|-------------------------|-----------|--------|---------|--------|-----------|--------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
| Budgeted Sales in units | 40,000 | 60,000 | 100,000 | 50,000 | 70,000 | 80,000 |

Sales are collected in the following pattern: 70% in the quarter sold, 25% in the first quarter following quarter sold, and the remaining is collected in the second quarter following quarter sold. On January 1, Year 2016, the company's balance sheet showed RM65,000 in accounts receivables, all of which will be collected in the first quarter of the year.

Required:

1. Prepare quarterly sales budget for Mekjah Company for the year 2016.
(8.5 Marks)
2. Prepared a quarterly schedule of expected cash collections of Mekjah Company for the year 2016.

(13.5 Marks)

[TOTAL 22 MARKS]**Continued.....**

QUESTION 4**PART A**

Shukobetsi Products Corporation of Japan is anxious to enter the wireless charger market. Management believes that in order to be competitive in world markets, the price of the wireless charger that the company is developing cannot exceed RM15. Shukobetsi required rate of return is 12% on all investment. An investment of RM5,000,000 would be required to purchase the equipment needed to produce the 300,000 wireless chargers that management believes can be sold each year at the RM15 price.

Required:

Compute the target cost of one wireless charger.

(4 Marks)

PART B

Blackwell Products Ind., designed a Get Fit T-shirt for “Let’s Healthy” campaign in the country. The following information is available about the T-Shirt.

- a. An investment of RM1,350,000 will be necessary to carry inventories and account receivable as well as to purchase new equipment needed in the manufacturing process. The company’s required rate of return is 24% on all investments.
- b. A standard costs card has been prepared for the T-shirt, as shown below:

| | Standard quantity or hours | Standard price or rate |
|---------------------------|-------------------------------|---------------------------|
| Direct materials | 4 units | RM2.70 per unit |
| Direct labor | 2.4 hours | RM8 per hour |
| Manufacturing overhead | 2.4 hours | RM12.50 per hour |

Continued.....

- c. The only variable selling, general and administrative expenses will be a sales commission of RM9 per T-shirt. Fixed selling, general and administrative expenses will be :

| | |
|------------------------|------------------|
| Salaries | RM82,000 |
| Warehouse rent | 50,000 |
| Advertising and others | 600,000 |
| | <u>RM732,000</u> |

- d. Since the company manufactures many products, no more than 38,400 direct labor hours per year can be devoted to production of the new T-shirt.
- e. Manufacturing overheads costs are allocated to products on the basis of direct labor hours.

Required:

Assume that the company is using absorption approach to cost-plus-pricing.

1. Compute the markup that the company needs to achieve the required ROI.
(7 Marks)
2. Prepare a price quotation sheet for a single T-shirt.
(3 Marks)

PART C

The fixed costs of operating the maintenance facility of WeCare Hospital are RM8,500,000 annually. Variable costs are incurred at the rate of RM15.20 per maintenance-hour. The facility averages 74,000 maintenance-hours a year. Budgeted and actual hours per user for 2016 are as follows:

| | <u>Budgeted hours</u> | <u>Actual hours</u> |
|-------------------------|-----------------------|---------------------|
| Building and grounds | 20,000 | 22,000 |
| Operating and emergency | 18,000 | 8,000 |
| Patient care | 25,000 | 32,000 |
| Administration | <u>11,000</u> | <u>11,200</u> |
| Total | <u>74,000</u> | <u>73,200</u> |

Assume that budgeted maintenance-hours are used to calculate the allocation rates.

Continued.....

Required:

1. If a single-rate cost-allocation method is used, what amount of maintenance cost will be budgeted for each department?
(4 Marks)

2. If a dual-rate cost-allocation method is used, what amount of maintenance cost will be budgeted for each department?
(10 Marks)

[TOTAL 28 MARKS]

End of page.